

**Northeast Fish Health Committee  
Guidelines  
for  
Fish Importation  
March 2008**

# **RESOLUTIONS OF THE NORTHEAST FISHERIES ADMINISTRATORS ASSOCIATION CONCERNING FISH HEALTH MANAGEMENT**

WHEREAS, fish diseases have caused serious losses in wild populations; and

WHEREAS, disease problems have resulted in reduced survival of wild and stocked fish, caused significant losses of fish to the public and diminished economic returns: and

WHEREAS, efficient propagation of fishes may be severely affected by the occurrence of fish diseases and major disease outbreaks, and have caused serious fish losses at aquaculture facilities; and

WHEREAS, the movement of fish can transfer pathogens and diseases; and

WHEREAS, introduction of fish pathogens hitherto not found in the northeast states can be prevented or curtailed through adequate inspection and restriction of imports; and interstate transfers; and

WHEREAS, it is technically possible to restrict or eliminate pathogens already introduced; and

WHEREAS, existing diagnostic techniques are adequate to initiate effective disease control; and

WHEREAS, the Northeast states include the following jurisdictions: Connecticut, Delaware, Pennsylvania, New York, Maine, Maryland, New Hampshire, West Virginia, Virginia, New Jersey, Rhode Island, Vermont, Massachusetts and federal agencies with natural resource mandates including National Marine Fisheries Service, United States Department of Agriculture Animal Plant Health Inspection Service, and United States Fish and Wildlife Service.

NOW, THEREFORE, BE IT RESOLVED that the Northeast Fisheries Administrators Association encourages state and federal fish and wildlife agencies to:

Maintain a Northeast Fish Health Committee of fish health professionals to review annually the fish health status of the Northeast states and develop regional guidelines that allow agencies to:

- Prevent the importation into, or transfer among member states, of fish infected with pathogens,
- Require fish health inspections on all imported fish lots being introduced into the region's waters,
- Develop statutes and/or regulations to manage the importation of fish in ways that minimize the movement of pathogens based upon these regional guidelines.

# INTRODUCTION

The Northeast Fisheries Administrators Association has developed these regional guidelines to coordinate the fish health management (fish disease management) efforts for importation of fishes. These guidelines set forth the essential requirements which include a fish health inspection system and references to the technical diagnostic procedures for the prevention and control of fish pathogens.

## Basic Obligation

Each member agency should take appropriate measures including the development of statutes and regulations based on these regional guidelines to restrict the spread of fish pathogens, to contain them within their known geographic ranges, and to strive for their elimination in the Northeast.

## Application

The guideline provisions apply to:

- All fishes imported into any member state that may be placed into waters of that state or held in waters discharged into waters of that state;
- Fish pathogens included, but are not limited to, those listed in the “Guidelines for Conducting Fish Health Inspections” for the appropriate family (Tables 1 - 8);
- Fish pathogen research and development facilities in which fish infected with, or exposed to, pathogens or a facility in the possession of pathogens capable of causing disease.

The provisions of these guidelines do not apply to:

- Fish or water in transit through member states not released from their original shipping containers;
- Diagnostic samples submitted to a state approved laboratory.
- Fish transported for the purpose of restaurant or grocery store sales provided that fish and/or transport water will not be released or discarded into member state waters.
- Fishes used in the pet trade provided that the fish and/or the water will not be released to the member state waters.

Nothing in these guidelines shall prevent member agencies from applying additional measures for the control of fish pathogens.

## Traffic in Fish

- Fish imported into a member state must be accompanied by a fish health inspection report prepared and signed by a qualified AFS fish health inspector or qualified licensed veterinarian. Prior to shipment the inspector will furnish to the receiving member state a statement confirming that the source of the gametes, fertilized eggs or fish has been inspected for the presence of each listed pathogen.

- No fish or fish products from a facility or water body known to be infected with Infectious Hematopoietic Necrosis Virus, Viral Hemorrhagic Septicemia Virus, Heterosporis, Infectious Salmon Anemia Virus, Spring Viremia of Carp, *Myxobolus cerebralis*, *Ceratomyxa shasta*, *Tetracapsula bryozoa*, may be imported.
- A member state may impose additional importation restrictions for pathogens.
- Disinfected eggs from *M. cerebralis* positive broodfish (that test negative for other pathogens) transported in pathogen-free water may be imported.
- No susceptible wild fishes from a water infected with family specific pathogens may be imported except those to state approved research facilities with appropriate disinfection and management control practices in place.

## Fish Health Inspections

- Fish health inspection reports must include results of the examinations for family specific pathogens listed (Tables 1 – 8).
- Sample collection and sample lots must follow family specific testing requirements listed in Tables 1-8.
- Sample collections and fish health certification reports must be made by a qualified fish health inspector. Methods used for collections and fish health inspections must be recognized by either the American Fisheries Society or the World Organization of Animal Health.

## Definitions

Term	Meaning
Clinical signs	- gross pathology, either internal or external signs and/or behavioral changes, associated with disease.
Disease	– a pathological condition of the fish that presents a group of signs indication the existence of an abnormal histological or physiological condition.
Disinfection	– a process that will destroy infective agents.
Emerging disease or pathogen	- recognizes that the development of new techniques, along with the culture of new species, may result in the detection of new diseases or pathogens. Upon detection of such an emerging disease or pathogen the Northeast Fish Health Committee should be notified for the purpose of conducting an emerging disease evaluation action plan.
Exotic disease or pathogen	- refers to an aquatic animal disease or pathogen strain not previously known to occur in a Member state's watershed and requires a historical absence of the pathogen or disease using adequate detection methods as determined by the Northeast Fish Health Committee.
Fish	- Live fish, viable fish eggs, viable sperm, offal or other fish products which have not been processed so as to render them

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Qualified Inspectors	<p>incapable of transmitting a listed fish pathogen.</p> <p>Inspectors: An accredited, licensed veterinarian, a certified fish health inspector or persons recognized by federal or state agencies with responsibility for fish health or transfer in the state from which the fish or gametes originate upon approval of the Commissioner. No owner or employee with direct supervisory authority over a facility may serve as an inspector for their fish culture facility.</p> <p>Accredited licensed veterinarian means a veterinarian holding a current veterinary license who has also fulfilled the accreditation requirements of the United States Department of Agriculture Animal and Plant Health Inspection Service (USDA/APHIS).</p> <p>Certified fish health inspector means an individual certified by the American Fisheries Society/Fish Health Section (AFS/FHS) as a Fish Health Inspector or Fish Pathologist.</p>
Lot	<p>- a lot of fish on a fish culture facility is a group of fish of the same species of the same age that have continuously shared a common water source throughout their life history.</p> <p>For the purposes of collecting wild fish, a "lot" of fish is a pooled collection of a single species that is held in a self contained holding structure with a pathogen free water source. A new lot of fish is formed every time untested fish are added to an existing "lot." When fish from distinct lots are combined, they form a newly distinct lot. Unless coming from an inspected/certified source, adding fish to a fish health tested lot will render the receiving lot untested.</p>
Listed Pathogen	<p>- an aquatic animal pathogen causing or associated with diseases and listed in these Guidelines.</p>
Member State	<p>– any of the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia</p>
Northeast Fish Health Committee (NESHCC)	<p>- is a subcommittee of and appointed by the Directors with the responsibility of the natural resource agencies managing the fisheries resources in the Northeast states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia to address fish health of fish in the Northeastern USA.</p>
Pathogen	<p>.</p> <p>- Any infectious disease producing microorganism.</p>

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## Tables

**Table 1 NEFHC Guidelines for Annual (July/August) Fish Health Inspections for Centrarchidae Fishes (e.g., black bass). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Largemouth bass virus Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis sp.</i> <i>Bothriocephalus opsarichthydis</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported

**Table 2 NEFHC Guidelines for Annual Fish Health Inspections for Percichthyidae Fishes (e.g., striped basses). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Largemouth bass virus Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus Spring viremia of carp	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i> <i>Photobacterium damsela</i> <i>Streptococcus spp.</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> none			All other parasites observed will be noted and reported

**Table 3 NEFHC Guidelines for Annual Fish Health Inspections for Salmonidae Fishes (e.g., trout, salmon, char). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Infectious salmon anemia virus Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus Oncorhynchus masou virus Infectious hematopoietic necrosis virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i> <i>Renibacterium salmonarum</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis</i> sp. <i>Myxobolus cerebralis</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported

**Table 4 NEFHC Guidelines for Annual Fish Health Inspections for Percidae Fishes (e.g., walleye, yellow perch). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Infectious hematopoietic necrosis virus Infectious pancreatic necrosis virus Viral hemorrhagic septicemia virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis</i> sp.	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported

**Table 5 NEFHC Guidelines for Semi-Annual Fish Health Inspections for Cyprinidae Fishes (e.g., minnows). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus Infectious hematopoietic necrosis virus Spring viremia of carp Koi herpes virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	150 fish minimum with no less than 60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	150 fish minimum with no less than 60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis</i> sp. <i>Bothriocephalus opsarichthydis</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	150 fish minimum with no less than 60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported

**Table 6 NEFHC Guidelines for Annual Fish Health Inspections for Esocidae Fishes (e.g., pikes). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Infectious hematopoietic necrosis virus Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus Lymphosarcoma virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckerii</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis</i> sp.	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported



**Table 7 NEFHC Guidelines for Annual Fish Health Inspections for Ictaluridae Fishes (e.g., catfishes). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Infectious hematopoietic necrosis virus Viral hemorrhagic septicemia virus Infectious pancreatic necrosis virus Channel catfish virus Catfish herpesvirus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Aeromonas salmonicida</i> <i>Yersinia ruckeri</i> <i>Edwardsiella tarda</i> <i>Edwardsiella ictaluri</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> <i>Heterosporis sp.</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported

**Table 8 NEFHC Guidelines for Annual Fish Health Inspections for Clupeidae Fishes (e.g., herring, shad). HAVE TO INSPECT FOR:**

Target Pathogen	Facility Inspection	Wild Fish Inspection	Comments
<u>Viral Pathogens:</u> Infectious hematopoietic necrosis virus Viral hemorrhagic septicemia virus	150 fish minimum from the facility with no less than 60 of each species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any filterable agent causing CPE will be reported and investigated
<u>Bacterial Pathogens:</u> <i>Vibrio anguillarum</i>	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	Any bacterial colony exhibiting predominance will be identified and reported
<u>Parasitic Pathogens:</u> none	60 fish minimum from the facility with no less than 30 fish per species. 3 years of inspection on facility.	60 fish per species; 3 years of inspection on source population.	All other parasites observed will be noted and reported